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Felipe Rincon*, felipe@math.berkeley.edu. *Isotropical Linear Spaces and Valuated Delta-Matroids.*

The spinor variety is defined by the quadratic Wick relations, and its points parametrize n -dimensional isotropic subspaces of a $2n$ -dimensional vector space. We explain how this picture tropicalizes, and we present a combinatorial theory of tropical Wick vectors and tropical linear spaces that are tropically isotropic. In particular, we show how tropical Wick vectors can be characterized in terms of subdivisions of Delta-matroid polytopes. Most of these results generalize the theory of tropical linear spaces and valuated matroids to the class of Coxeter matroids of type D. (Received July 18, 2011)